Supreme Court, U.S.
FILED
MAR 1 - 2005
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No. 04-480

IN THE

Supreme Court of the United States

METRO-GOLDWYN-MAYER STUDIOS, INC., ET AL.,

Petitioners,

v.

GROKSTER, LTD., ET AL.,

Respondents.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

BRIEF OF *AMICI CURIAE* EMERGING TECHNOLOGY COMPANIES IN SUPPORT OF RESPONDENTS

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STATEMENT OF INTEREST OF *AMICI CURIAE*[1]

Amici curiae are small companies that create, market, and sell a diverse array of innovative products based on emerging digital technologies. All *amici* produce staple articles of commerce that have substantial non-copyright-infringing uses for the numerous businesses and individual consumers who buy them. These emerging technology companies have a grave concern that the new legal standard for contributory copyright infringement proposed by Petitioners would stifle innovation by fostering a significantly greater degree of uncertainty about possible liability, thus increasing the risks associated with developing new products and bringing them to market. *Amici* are also concerned that such a doctrinal change would have a deleterious impact on the national economy, as new technological innovation is a key driver of economic growth.

Sima Products Corporation

Sima Products Corporation, based in Oakmont, Pennsylvania, produces digital video enhancers and editors. Sima's products allow customers to edit and enhance home videos by adding titles and special effects and to preserve home videos on DVD. Sima's product literature, user manuals, and product inserts include a cautionary notice telling customers that the product should not be used for the

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1. Pursuant to Rule 37.2 of the Rules of this Court, letters of consent to the filing of this brief have been submitted to the Court. Pursuant to Rule 37.6 of the Rules of this Court, counsel for the *amici* state that no counsel for either party to this matter authored the brief in whole or in part. Further, no persons or entities, other than the *amici* and their counsel, contributed monetarily to the preparation or submission of this brief.

unauthorized recording of copyrighted works. In the event that Sima learns of a customer who is promoting a product for use in circumventing copy protection technology or making unauthorized copies, Sima will refuse to supply the product to that customer.

Kaleidescape, Inc.

Kaleidescape, Inc., based in Mountain View, California, produces a family of products which, when used together as a system, allows customers to store their DVD collection on a secure data server and watch their movies in any room in their homes without using the discs themselves. A Kaleidescape system comprises several components: one or more media servers, one or more DVD readers, and any number of movie players. The system includes a sophisticated storage system capable of storing hundreds or thousands of movies, and a user interface that allows the user to retrieve and play movies easily, to mark favorite scenes for future viewing, and to establish and enforce parental controls. Customers must agree never to load onto a Kaleidescape system a DVD that they do not rightfully own and to delete any copies of DVDs they give away or sell. Kaleidescape retains the right and has the functional capability to suspend or terminate its Movie Guide Service and all software updates if the customer uses the system to infringe the intellectual property rights of Kaleidescape or any third party. In addition, every time a customer loads a movie, the Kaleidescape system requires the customer to certify that he or she owns a DVD copy of that movie.

Sling Media, Inc.

Sling Media, Inc. is a startup company operating in San Mateo, California. Its Slingbox product allows users to watch their living room television programming from anywhere. After connecting a cable box or satellite receiver to a Slingbox via standard analog outputs, users can watch their television programming on any networked personal computer or mobile device over a secure, authenticated connection. Sling Media has implemented technology that prohibits multiple computers or other devices from connecting to the Slingbox simultaneously.

Interact-TV, Inc.

Colorado-based Interact-TV, Inc.'s Telly Home Entertainment Server products allow customers to store, organize, and play back television programs, movies, music, and digital photos from a server in the home. Customers can then share their media files with other Interact-TV products and media devices using their home networks. Interact-TV's products securely manage large amounts of digital media, and can store up to 1.2 terabytes of data. Interact-TV's products also allow customers to save music and recorded television programs onto CDs and DVDs. Interact-TV's license agreement, to which every customer must agree when installing Interact-TV products, includes a copyright warning stating that the product is not made or sold for storing unauthorized copyrighted works, including audio CDs or movie DVDs.

Elgato Systems

Elgato Systems produces digital television recorders and video digitizing devices, as well as other hardware and software products that allow customers to stream their home videos, photos, and music from their computer, over their personal networks, to their television or other consumer electronics devices. Elgato's products allow customers to record television shows as digital files on computer hard drives and to convert home videos from analog sources to digital files also stored on a computer hard drive. Once captured, the video files can be edited and exported for preservation and playback on various digital devices. Elgato's product literature, user manuals, and product packaging include a cautionary notice to customers that the product should not be used for the unauthorized recording or commercial distribution of copyrighted works. Founded in 1992, Elgato is a privately held company with its headquarters in Munich, Germany and a subsidiary in San Francisco, California.

Slim Devices, Inc.

Based in Mountain View, California, Slim Devices, Inc. produces the Squeezebox, a device that streams music stored on a customer's computer to a customer's stereo over a home network. Slim Devices also makes software that allows customers to control their Squeezeboxes from their computers. The architecture of the software, developed under an open-source license, makes it possible for individuals outside of the company to contribute product enhancements (plug-ins) to the user community. Before the company will convert customers' CDs to a format that may be stored on their computers, it requires customers to certify that they will

not engage in unauthorized duplication or distribution of music files. Slim Devices assembles its products in the United States; a substantial portion of its products is exported for sale in other countries.

Jambalaya Brands

Jambalaya Brands is a software sales and marketing company located outside St. Louis, Missouri. Jambalaya's flagship brand is Audio Xtract, a family of software products that allows customers to record streaming Internet music and audio and save the recordings as separate MP3 files. Like a VCR or digital video recorder, Audio Xtract gives customers the ability to time-shift, and therefore to listen to the music or audio at times of their own choosing. Unlike peer-to-peer sources, Audio Xtract records in real time, rather than downloading a shared file. The Audio Xtract website includes a statement urging customers to respect artists' and content owners' copyrights, and explaining that the software is designed to assist customers in recording only for personal use.

Feedster, Inc.

Feedster, Inc., based in San Francisco, California, has developed a rapidly growing Internet search engine that provides access to relevant and up-to-date information. Mainstream information providers, as well as hundreds of thousands of weblogs, use a technology called Really Simple Syndication (RSS) to make regular updates of their information—called "feeds"—available to Internet users. Feedster indexes over five million of these feeds, adding approximately 75,000 new feeds every day. RSS feeds include the entire gamut of expression and commerce, including but not limited to

professional journalism, individual opinion on weblogs and elsewhere, job listings, product auctions, and weather. Feedster enables anyone to broadcast ideas and opinions to an audience several orders of magnitude larger than was previously feasible. In turn, Feedster helps readers find more diverse sources of information and filter them in a variety of ways.

Time Trax Technologies Corporation

Time Trax Technologies Corporation, based in greater metropolitan Washington, D.C., produces several models of a digital audio recorder (DAR). The TimeTrax DAR product is a software and hardware combination that records, on a user-selective basis, from XM or Sirius satellite radio. It is used to listen to, record, and time-shift satellite radio broadcasts on a personal computer, in MP3 or other formats. The files can then be moved to a CD or portable player for personal use. TimeTrax customers must agree that the broadcasts they capture will be for personal use only and that they will not distribute, sell, or share them in any way.

SUMMARY OF ARGUMENT

Petitioners' proposal that manufacturers be held liable for the mere sale of a staple article of commerce when the product's "primary uses" are infringing would constitute a unwarranted alteration of the test set forth in *Sony Corp. v. Universal City Studios*, 464 U.S. 417 (1984), that would have profound negative consequences for emerging technology companies. Determining a product's "primary uses" necessarily requires evaluating how the product is actually used. This *ex post*, or after-the-fact, test for contributory infringement would greatly increase the legal uncertainty

surrounding the decision to pursue commercialization of a new technology. Emerging technology companies cannot necessarily predict the "primary uses" to which their new technology will be put, much less whether those uses would be held by the courts to be infringing uses.

Emerging technology companies already face daunting technical and financial risks. The legal uncertainty inherent in Petitioners' proposed test would add a substantial hurdle to the commercialization of new and innovative technologies and ultimately would deprive the public of products capable of substantial and valuable noninfringing uses. As one commentator explained:

> The consequence of [the] massive threat of liability tied to the murky boundaries of copyright law is that innovators who want to innovate in this space can safely innovate only if they have the sign-off from last generation's dominant industries. . . . It is a system that will obviously and necessarily stifle new innovation. It is hard enough to start a company. It is impossibly hard if that company is constantly threatened by litigation.

Lawrence Lessig, *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity* 188-89, 191 (2004).

The Court should likewise decline Petitioners' invitation to mandate technical means of blocking copyright infringement in products that are capable of substantial noninfringing uses. Requiring inventors to determine whether there are, or will be, available blocking technologies and

whether infringing uses "can be readily blocked without significantly affecting lawful uses [of the product]," Br. For Mot. Picture Studio & Recording Co. Pet'rs ("Pet. Br.") at 33, would compound the difficulties inherent in developing and commercializing new products.

Not only would it be difficult for the companies to predict whether blocking technologies might be available at some future point, but incorporating blocking mechanisms would also increase the technical and financial risk associated with developing new technologies. Nevertheless, companies would likely feel compelled either to incorporate blocking technologies—even if cumbersome and expensive—as a prophylactic measure, or to abandon innovation altogether.

Petitioners' test would compound the technical, financial, and legal risks that emerging technology companies already face, thus stifling innovation, causing disastrous consequences for those companies, and ultimately damaging the public interest. Rather than stifling innovation by essentially mandating technical design, the law should favor a test that least restricts innovation, while still "strik[ing] a balance between a copyright holder's legitimate demand for effective—not merely symbolic—protection . . . and the rights of others freely to engage in substantially unrelated areas of commerce." *Sony*, 464 U.S. at 442.

ARGUMENT

Petitioners propose that manufacturers should be liable for the mere sale of a staple article of commerce when (1) "the primary uses [of the product] are infringing," and (2) those infringing uses "can be readily blocked without significantly affecting lawful uses [of the product]." Pet. Br. at 33 (relying on *In re Aimster Copyright Litig.*, 334 F.3d 643 (7th Cir. 2003), *cert. denied*, 540 U.S. 1107 (2004)). They urge that this test be applied when, as in *Sony Corp. v. Universal City Studios*, 464 U.S. 417 (1984), the manufacturer of a staple article of commerce has no actual knowledge of infringing activity by users and did not encourage or actively induce that infringement. Petitioners' proposed test would expand the zone of uncertainty surrounding their temporary copyright monopoly, interfere with manufacturers' lawful businesses, and deprive the public of valuable innovation.

Petitioners' proposed test depends on how customers actually use a product after it is developed and sold. Because a product's "primary" use under Petitioners' test would be determinable only after the development phase is completed, the test depends on an "*ex post*," or "after the fact," infringement analysis. In contrast, the *Sony* test allows the companies to make an "*ex ante*," or "before the fact," determination during the design phase—namely, whether their product is capable of a substantial noninfringing use.[2] The *Sony* test can be and has been applied during the product development process, and, consequently, technology companies can make changes to a product during the design phase.

2. In urging the Court to preserve the *Sony ex ante* test and apply it here, *amici* recognize that the lower courts, in implementing (Cont'd)

In that early phase of a product's life cycle, the cost of changing the product, or even deciding not to make or sell a product, is orders of magnitude less than taking the same action after the product is in the marketplace.

Emerging technology companies are already subject to substantial technical and financial risks associated with creating a commercial enterprise and commercializing new technologies. The legal uncertainty resulting from Petitioners' proposed standards would add yet additional risk for innovators who already may be struggling to survive. Additionally, Petitioners' test would call into question liability for products, such as video editors, that have been in the marketplace for years without challenge by copyright owners. These legal risks may have an even greater deterrent effect than technical or financial risk because they threaten manufacturers and their associates with civil liability and injunctive relief in addition to loss of their investments. *See Sony*, 464 U.S. at 433 (acknowledging the Copyright Act's "potent arsenal of remedies"). As a result, many of these companies may simply choose not to undertake that risk, and innovation will suffer. The law should favor a test that least restricts innovation, while still "strik[ing] a balance between a copyright holder's legitimate demand for effective—not merely symbolic—protection . . . and the rights of others

(Cont'd)

that test interstitially, may develop appropriate refinements that are consistent with that test, and that not only balance the relative interests of copyright holders, existing and emerging technology companies, and the public (as *Sony* presently does), but also reflect emerging First Amendment values as well as the critical need for leeway for creative new technologies given the extraordinarily long terms now available for copyright.

freely to engage in substantially unrelated areas of commerce." *Id.* at 442.

A. Emerging Technology Companies Already Face Daunting Technical and Financial Risks.

Technical risk involves the possibility that a particular research project will not produce desirable results—for example, that a new antenna design will not produce a stronger signal or that a new software program will not improve audio quality. Technical risk is extremely difficult to assess, even for long-established, well-funded enterprises. IBM's former Director of Research, James McGroddy, expressed the dilemma as follows:

> [Risk] is a statistical term, and therefore, I think, very inapplicable to single projects. . . . When you go to jump across the chasm, you either make it or you don't. It's not a continuous thing. And I think what risk management is about is identifying the points at which you can fall in the chasm, focusing your energy and focusing the rate at which you invest, consistent with the view that you've got to jump across this Grand Canyon on your motorcycle.

National Institute of Science and Technology ("NIST"), *Managing Technical Risk: Understanding Private Sector Decision Making on Early Stage, Technology-based Projects* 9 (2000). The survival and success of emerging technologies frequently hinge on the outcome of a single project. Technical risk therefore presents a threat to the very existence of small, emerging technology companies. Indeed, many such companies litter the bottom of McGroddy's metaphorical Grand Canyon.

Economic risk, on the other hand, involves the possibility that investment in a new technology will not provide returns, *even if* the technical effort succeeds. Returns on investment in emerging technology companies are highly skewed, with a small minority of the investments representing the vast majority of the terminal value. *Id.* at 9. Consequently, investments in emerging technology companies—even by experienced investors—are extremely risky. The result is that many promising technological advances never receive funding and therefore never develop into commercial products. *See* NIST, *Between Invention and Innovation: An Analysis of Funding for Early-Stage Technology Development* 35-36 & fig.3 (2002) (illustrating the gap between invention and commercialized innovation as a "Valley of Death").

Taken together, technical and economic risks thus pose serious—and often insurmountable—roadblocks to emerging technology companies' commercialization of their innovations *even without* the existence of any legal risk. The National Institute of Science and Technology explains the factors influencing investors' and entrepreneurs' calculation of these risks as follows:

> What then are the factors that would influence a potential investor's perception of the risks in a fledgling high-tech venture? These factors would include perceptions of the probability of losing the entire investment; the amount of that investment (especially relative to the size of the pool of funds available for investment); and the level of uncertainty in the decisionmaker's mind regarding the accuracy of the above estimates. Presumably, entrepreneurs themselves gauge risk

> in a similar manner, but include non-financial outcomes as well, including any detrimental impact on their career, status, or professional reputation.
>
> Having assessed the level of risk in the prospective investment, the investor may be unwilling to commit time or money to a venture either because the uncertainty seems too high or too costly to reduce—the entrepreneur or investor may simply feel that "I'm never going to be able to make a sound judgment about this"—or because the probability of losing money, or the amount of money at risk, is simply not a match with the investor's or entrepreneur's risk profile.

NIST, *Managing Technical Risk, supra*, at 19-20.

B. Legal Uncertainty and Risk, Acting in Concert With Technical and Financial Risk, Stifles Innovation, Especially Among Emerging Technology Companies.

Taken together with technical and financial risks, legal risks can have a negatively compounding effect on innovation. Legal risk arises when an actor cannot be sure what legal consequences will attach to her actions. John E. Calfee & Richard Craswell, *Some Effects of Uncertainty on Compliance with Legal Standards*, 70 Va. L. Rev. 965, 968 (1984). If the legal standard is vague, flexible, and fact-intensive, even the best-intentioned companies will face some chance of being held liable because of the unpredictability of the legal rule. *Id.* at 966. Some companies will avoid that risk by "overcomplying" with the standard, by avoiding the course of action altogether. *Id.*

For people to conform their actions to a legal rule, the allowable or required actions must depend only on circumstances they know or are able to ascertain. "[U]ncertainty has been regarded as incompatible with the Rule of Law. Rudimentary justice requires that those subject to the law must have the means of knowing what it prescribes." Antonin Scalia, *The Rule of Law as a Law of Rules*, 56 U. Chi. L. Rev. 1175, 1179 (1989). "No rule can be effective, or can leave [them] free to decide, that makes [their] range of free decisions dependent on remote consequences of [their] actions beyond [their] ability to foresee." Friedrich A. Hayek, *The Constitution of Liberty* 157 (1960). This Court has expressed deep concern regarding the fundamental fairness of exposing persons to liability without giving them adequate notice of what sort of conduct may create that exposure. *See, e.g.*, *BMW of N. Am., Inc. v. Gore*, 517 U.S. 559, 574 & n.22 (1996) (Stevens, J.) ("Elementary notions of fairness enshrined in our constitutional jurisprudence dictate that a person receive fair notice not only of the conduct that will subject him to punishment, but also of the severity of the penalty that a State may impose.").

Legal risks are particularly high when the analysis requires a case-by-case judgment. These risks include lack of predictability and an inability to form expectations. Cass R. Sunstein, *Problems with Rules*, 83 Cal. L. Rev. 953, 958 (1995); *see also* Richard H. Seamon, *The Provenance of the Federal Courts Improvement Act of 1982*, 71 Geo. Wash. L. Rev. 543, 567-68, 578 (2003) (noting that confusion and uncertainty in patent law before creation of the Federal Circuit stifled innovation and led to forum shopping and unnecessary litigation). Technology companies are particularly vulnerable to the stifling effect of legal

uncertainty. *Microsoft Corp. v. United States*, 530 U.S. 1301, 1301 (2000) (Breyer, J., dissenting) ("The case significantly affects an important sector of the economy—a sector characterized by rapid technological change. Speed in reaching a final decision may help create legal certainty. That certainty, in turn, may further the economic development of that sector so important to our Nation's prosperity.").

Uncertainty surrounding a legal standard creates additional risks by inciting litigation and, once started, fueling its course. Difficulty in predicting the application of an uncertain legal standard leads to breakdowns in licensing negotiations pre-suit, and stalemates in settlement negotiations during litigation. *See* John R. Allison, Mark A. Lemley, Kimberly A. Moore & R. Derek Trunkey, *Valuable Patents*, 92 Geo. L.J. 435, 475 (2004) (attributing increases in software patent litigation to uncertainty in legal standards for software and computer-related patents). Well-funded companies in established industries have an enormous advantage over emerging technology companies in that situation. The mere chance of being sued by an 800-pound gorilla in the movie or recording industry may make an innovator think twice about commercializing a promising technology. *See* Sunstein, *supra*, 83 Cal. L. Rev. at 977 (explaining that case-by-case analysis systematically favors the well-to-do: "Litigation is extremely expensive, and for litigants to seek fine-grained, individualized judgments, they need resources. In an ideal world, case-by-case particularization might allow for more equitable judgments tailored to particular facts. But in this world, it may result in a pervasive form of inequality, in which people without resources stand on the sidelines, or are unable to persuade officials that their case warrants favorable treatment.").

Legal uncertainty also increases financial risks. During the sensitive pre-commercialization stage, an innovator may have to spend enormous sums on legal advice to determine if the technology may violate an unclear standard, particularly if the standard is based on *ex post* analysis. A legal standard that provides only for *ex post* determination of liability greatly increases the cost of analyzing legal risk. *See* Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 Duke L.J. 557, 605 (1992). After commercialization, a company may have to spend additional funds to determine if new, unforeseen uses of its technology violate the standard. This would add to the already significant financial burdens of an emerging technology company.

In *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), this Court recognized the chilling effect of legal risk and the enormous financial burdens the threat of litigation places on enterprise and experimentation. The Court explained that without clear, knowable limits on the scope of a patent, there would exist "a zone of uncertainty which enterprise and experimentation [could] enter only at the risk of infringement claims." *Id.* at 390 (internal quotation marks omitted). This zone of uncertainty "would discourage invention only a little less than unequivocal foreclosure of the field." *Id.* (citation and internal quotation marks omitted). As a result, "[t]he public [would] be deprived of rights supposed to belong to it, without being clearly told what it is that limits these rights." *Id.* (citation and internal quotation marks omitted) (alterations in original). The harmful impact of such a zone of uncertainty is no less profound in the realm of copyright.

Legal risk, when added to the unavoidable technical and financial risks, may cause innovative companies—even large, established enterprises—to abandon promising projects and deprive the public of the benefits of innovation:

> Some manufacturers of prescription drugs, for example, have decided that it is better to avoid uncertain liability than to introduce a new pill or vaccine into the market. Similarly, designers of airplanes and motor vehicles have been forced to abandon new projects for fear of lawsuits that can often lead to awards of punitive damages.

Browning-Ferris Indus. of Vt., Inc., v. Kelco Disposal, Inc., 492 U.S. 257, 282 (1989) (O'Connor, J., concurring in part and dissenting in part) (citations omitted).

> If the law imposed the death penalty for parking tickets, we'd not only have fewer parking tickets, we'd also have much less driving. The same principle applies to innovation. If innovation is constantly checked by . . . uncertain and unlimited liability, we will have much less vibrant innovation and much less creativity.

Lessig, *supra*, at 192.

C. Petitioners' Vague Standard Would Substantially Increase Legal Uncertainty and Risk by Requiring a Complex *Ex Post* Liability Analysis.

In an emerging technology environment, the predictability of legal risk is as important as the magnitude of that risk. To be predictable, the risk must be:

(1) assessable *ex ante*—before inventors, entrepreneurs, and investors know for certain what the uses of the product will be; and

(2) based on a simple test—because simple tests, other things being equal, are more predictable than complex ones.

A simple *ex ante* test allows inventors, entrepreneurs, and investors to assess their exposure to liability relatively accurately at an early point in the product life cycle when they can still hope to change it. A complex *ex post* test, on the other hand, lacks predictability and provides them with no clear notice of what sort of conduct will expose them to liability. *See* Kaplow, *supra*, 42 Duke L.J. at 622 ("[R]ules, announced in advance, are more likely to influence actual behavior, whereas individuals may find it infeasible or too costly to predict how an adjudicator will apply a [complex *ex post*] standard to their behavior."). Unfortunately, Petitioners are seeking to replace *Sony*'s simple *ex ante* test with a complicated *ex post* test that will make it nearly impossible to assess the legal risks of a new technology.

1. Inventors, Entrepreneurs, and Investors Cannot Necessarily Predict the "Primary Uses" of Their Products.

Under Petitioners' proposed standard, inventors, entrepreneurs, and investors must estimate, *before* they choose to pursue a technological project, what the "primary uses" *will be* at an unspecified moment in the future when a copyright holder decides to file suit. Petitioners' proposed test would impose crushing legal liability, including enormous statutory damages, on decisionmakers who do not accurately foresee the uses to which a product will be put. *See Sony*, 464 U.S. at 433 (summarizing the Copyright Act's "potent arsenal of remedies").

But inventors, entrepreneurs, and investors assessing a given technological enterprise often have no way of knowing, at the time that they must make their decisions, what the product's ultimate uses will be. For example, 3M originally assumed that the adhesive that made Post-It Notes possible would be used for bulletin boards.[3] Viagra was supposed to be a heart medicine.[4] The World Wide Web was made possible by software that was written to allow academic researchers to share their results with each other.[5] In all of

3. 3M Corp., *Art Fry and the Invention of Post-it® Notes*, *at* http://www.3m.com/about3m/pioneers/fry.jhtml (last visited Feb. 27, 2005).

4. Jim Kling, *From Hypertension to Angina to Viagra*, Modern Drug Discovery, Nov.–Dec. 1998, at 31, 33-34, 36, 38, *available at* http://pubs.acs.org/hotartcl/mdd/98/novdec/viagra.html.

5. Tim Berners-Lee, *WorldWideWeb – Summary*, *at* http://www.w3.org/History/19921103-hypertext/hypertext/WWW/Summary.html (Nov. 3, 1992).

these cases, the decisionmakers who supported these products did not envision the actual, primary uses that later emerged. Petitioners' proposed *ex post* test thus risks imposing an impermissible retroactive penalty on inventors, entrepreneurs, and investors who develop and market a useful product with substantial noninfringing uses, but that is later put to unforeseen infringing uses.

Under the *Sony* test, however, inventors, entrepreneurs, and investors need only satisfy themselves that the product will have a substantial noninfringing use. This analysis can be performed with some level of certainty very early in the technology's development: if the product is capable of substantial noninfringing uses, the test is met.

Petitioners' "primary uses" test would create additional risk because emerging technology companies would be forced to predict how courts will resolve other related issues. For example, whether a product's "primary uses" are infringing or noninfringing often would depend on a court's characterization of such uses as fair or unfair. Where a portion of anticipated uses is neither clearly infringing nor clearly noninfringing, the company would have to predict courts' fair-use analyses and holdings years in advance. This exercise would prove daunting even to larger, more established technology companies, which may find such a degree of uncertainty and risk intolerable as a business proposition, particularly in competitive markets. Had Apple Computer, Inc. faced Petitioners' proposed test, it may very well have decided to abandon its plans for the popular iPod digital music player rather than risk liability for contributory copyright infringement after investing enormous resources to design, develop, and market the innovative product.

Petitioners' proposed test could reach other staple products as well. Because the test requires that the product's primary use be determined as of the time of the alleged infringement, there is no way for a manufacturer to predict with any certainty whether the product will ultimately satisfy the test. For example, manufacturers of hard disk drives, memory modules, sound cards, and video displays cannot be certain in advance that the "primary uses" of their products will not be to store or play infringing movies and music. Similarly, universities and telecommunications companies cannot assure themselves in advance that the "primary" source of traffic on their communications networks will not be infringing communications. Likewise, digital scanner manufacturers cannot be certain that their customers will use their products "primarily" for copying public domain or licensed images. The "primary uses" of emerging technology products may change over time, and resist even the best-informed efforts at prediction. The risk of such retroactive liability due to the possibility of unforeseen infringing uses may be too great for many emerging technology companies to take.

2. Inventors, Entrepreneurs, and Investors Would Likely Choose To Forgo the Design and Commercialization of Innovative Products If Required to Predict and Build in Technology That Would "Readily Block" Customers' Future Infringing Uses.

Petitioners' proposed test would also require that inventors, entrepreneurs, and investors continually reevaluate whether technical means are "readily available" that would "readily block" infringing uses without "significantly affecting" lawful uses. Pet. Br. at 32-34. Such a requirement has numerous flaws.

To begin with, decisionmakers would be required to predict, even before they produce a product, whether technical means will be available to control (possibly unforeseen) uses of that product at some point in the future.[6] Moreover, they would have to repeat this analysis as the capabilities of the product and of the technical means of preventing infringement develop, thus increasing development costs for every product. Those who predict incorrectly would be subject to significant legal liabilities.

In addition, adding such blocking means to prevent infringing uses increases the technical and financial risks associated with the product. A device that performs a given function "X" but that also includes a blocking function "Y" will, all other things being equal, be more complex (and thus more technically risky) than a product that performs only function X. If emerging companies opt not to incorporate blocking mechanisms into their products (because they deem them unnecessary or impractical due to technical, time, or cost constraints), investors fearful of contributory copyright infringement suits might refuse to fund them. *See generally* Michael J. Meurer, *Controlling Opportunistic and Anti-Competitive Intellectual Property Litigation*, 44 B.C. L. Rev.

6. *Amici* economics and law professors take one giant, breathtaking leap further. They propose that, in assessing whether indirect liability should attach, the courts should also determine the marginal value of the accused technology over the next-best legally permissible approach. Br. of *Amici* Kenneth J. Arrow *et al.* at 11-12. In other words, the courts—instead of the innovators or the market—should decide the value of a new technology over noninfringing "substitute technologies." *See id.* Of course, such alternatives may appear throughout a product's life cycle, thus further complicating the ability to decide *ex ante* whether to commercialize a new technology.

509, 523-24 (2003) (observing the harms to emerging companies from the risks of lawsuits, including loss of investors, delayed market entry, and the abandonment of new products). Faced with such prospects, rational companies would be compelled either to incorporate blocking mechanisms into their products—whether or not they considered such mechanisms to be feasible, affordable, or necessary—or choose to forgo innovation entirely. Many would choose the latter option because of the sheer cost and technical risks associated with developing or purchasing technology that has not been shown to be feasible. *See* Mark A. Lemley & R. Anthony Reese, *Reducing Digital Copyright Infringement Without Restricting Innovation*, 56 Stan. L. Rev. 1345, 1384-87 (2004) (discussing harms to innovators and the public caused by requiring companies to anticipate and block infringing uses of their products).

If the Court were to adopt Petitioners' suggestion and effectively mandate the use of blocking technology, many more emerging companies would withdraw products or services from the market or cease operations entirely. As a result, the general public would be deprived of legal uses of products or services that were withdrawn from the market or never developed. *See id.* at 1387. The public would also suffer the loss of unanticipated future benefits of those technologies. *Id.*

Another significant problem with Petitioners' proposed test is that its standards ("readily block" and "significantly affecting") are so vague they could mean almost anything. Petitioners offer no guidance on how courts should determine whether blocking means are readily available, or whether a given blocking means is effective, or how burdensome the means can be on lawful uses before it significantly affects those lawful uses. Petitioners imply that these notions can be quantified, but fail to give any useful guidance on how to

do so. Such vagueness in a legal standard leads to both unpredictability and chilling of behavior. *See* Gerhard Casper, *The United States at the End of the "American Century": The Rule of Law or Enlightened Absolutism?*, 4 Wash. U. J.L. & Pol'y 149, 169-70 (2000).

Moreover, whether blocking mechanisms are "readily available" and whether they can "readily block" infringing uses are inherently fact questions that would generate sharp factual disputes. These fact questions promise to be particularly complex given that blocking mechanisms by definition can block only what is known or is reasonably anticipated. Thus, battling experts would be required to opine on the predicate issue of what infringing uses were known or reasonably anticipated by the product's developers. Resolution short of trial likely would be rare, and litigation costs would be high.

In other areas of commerce, the law gives a wide berth to product design. Car manufacturers, for example, are not required to build in mechanisms to prevent their cars from exceeding the speed limit, even though speeding may jeopardize human life rather than mere property rights. Photocopier manufacturers are not required by copyright law to prevent all infringing uses of their devices, either. It is no more tenable to require companies that develop electronic devices or programs that certain consumers may use for reproducing copyrighted works to build in devices to block those infringing uses.[7]

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7. Petitioners already have a "potent arsenal of remedies" to reach infringers and those who actively assist them. *Sony*, 464 U.S. at 433. Federal Rule of Civil Procedure 65(d), for example, allows for injunctive relief against "those persons in active concert or participation with infringers." *See* 2 Paul Goldstein, *Copyright* § 6.1, (Cont'd)

The Court should reject Petitioners' invitation to alter the law of contributory infringement to mandate technical design. The Court in *Sony* refused to take the step of requiring blocking technology. *See Sony*, 464 U.S. at 494 (Blackmun, J., dissenting) (urging a view, rejected by the majority, that the availability of blocking technology should be built into contributory infringement analysis). The Court should again refuse to take that step, particularly given the fast-changing nature of the technologies that would be affected. *Cf. Denver Area Educ. Telecomm. Consort., Inc. v. FCC*, 518 U.S. 727, 776-78 (1996) (Souter, J., concurring) (counseling against adopting a technology-dependent legal standard in the context of regulating indecent speech over cable, given the evolving nature of that technology); *see also United States v. Microsoft Corp.*, 147 F.3d 935, 949-50 (D.C. Cir. 1998) (stating that courts have recognized the limits of their institutional competence in assessing the justifiability of product innovations). The test for contributory infringement should be the one that least restricts innovation, while still "strik[ing] a balance between a copyright holder's legitimate demand for effective—not merely symbolic—protection . . . and the rights of others freely to engage in substantially unrelated areas of commerce." *Sony*, 464 U.S. at 442.

(Cont'd)
at 6:6–6:7 (2d ed. 2005) (citing Fed. R. Civ. P. 65(d)). Petitioners' proposed test, by broadening liability for contributory infringement, would result in a form of legal "overprotection" for those who have ample existing remedies.

CONCLUSION

Petitioners seek to replace the relatively simple, *ex ante Sony* test with a complex and vague test that realistically can only be applied *ex post*. Petitioners' proposed test would stifle innovation, particularly among emerging technology companies, which are uniquely vulnerable to increased legal risk. Inventors, entrepreneurs, and investors would be unable to estimate accurately their legal exposure because it would depend on future events, including the decisions of users of the product, courts' characterization of those uses as infringing or noninfringing, the development of technical means to prevent infringing use, and the resolution of other intensely factual issues. The proposed test would create a zone of legal uncertainty that would lead emerging technology companies, already saddled with technical and financial risk, to curtail the creation of innovative products, thereby depriving the public of valuable legal uses of new technologies.

Respectfully submitted,

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March 1, 2005